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## Abstract of the Disclosure

The invention relates to compounds of formula (I) or (II), which are of interest especially for inhibition of polymerization of amyloid  $\beta$  peptide, as model substances for synthesis of amyloid  $\beta$  peptide-ligands, as tools for the identification of other organic compounds with similar functional properties and/or as ligands for detection of amyloid deposits using e.g., positron emission tomography (PET). Formula (II) is: R<sub>1</sub> - A´ - Y´ - Leu - X' - Z' - B' - R<sub>2</sub> in which X' means any group or amino acid imparting to the compound according to formula (I) the ability to bind to the KLVFF-sequence in amyloid  $\beta$  peptide, or two amino acids imparting the same ability, but with the proviso that one is not proline; Y' means any amino acid; Z' means any non-acidic amino acid; A' means a direct bond or an αamino acid bonded at the carboxyl terminal of the α-carboxy group or a di-, tri-, tetra- or pentapeptide bonded at the carboxyl terminal of the α-carboxy group; B' means a direct bond or an α-amino acid bonded at the α-nitrogen or a di-, tri-, tetra- or pentapeptide bonded at the  $\alpha$ -nitrogen of the N-terminal  $\alpha$ -amino acid;  $R_1$  is H or -CO- $R_3$  bonded at the  $\alpha$ -amino group of A';  $R_2$  is H,  $-OR_4$  or  $NR_5R_6$ , all bonded to the  $\alpha$ -carboxyl group of the  $\alpha$ -carboxyterminal of B'; R<sub>3</sub> and R<sub>4</sub> are straight or branched carbon chain of 1-4 carbon atoms; R<sub>5</sub> and R<sub>6</sub> are independently H, alkyl, cycloalkyl, aryl or substituted aryl or together are -(CH<sub>2</sub>)<sub>n</sub>- where n is 4-5; and R<sub>1</sub> and R<sub>2</sub> together can form a hydrocarbon ring or heterocyclic ring; all α-amino acids being either D- or L-isomers.